

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) ~~An optoelectronic-device substrate including~~substrate, comprising:

_____ a memory-cell array including a plurality of memory cells that is arranged in matrix form and digitally ~~driven~~driven; and

_____ a pixel electrode ~~for retrieving~~to retrieve pixel data stored in the memory cells as an electrical ~~signal~~signal;

~~wherein~~each of the memory cells has ~~having~~a phase-inversion circuit for invertingto invert the phase of transmitted pixel ~~data~~data, and a data-inversion signal ~~whose having a phase that~~ is inverted by the phase-inversion circuit ~~is being~~transmitted to the pixel electrode.

2. (Currently Amended) ~~An~~The optoelectronic-device substrate according to Claim 1, ~~wherein~~each of the memory cells comprisesincluding:

a storage unit ~~for storing~~to store the pixel data;

a first analog switch ~~for generating~~to generate the data-inversion signal, based on the phase-inversion signal; and

a second analog switch ~~for switching~~to switch between the data-inversion signal from the first analog switch and a zero-data ~~signal~~signal;

~~wherein~~the data-inversion signal is being selected when the pixel data is stored in the storage ~~unit~~unit, and the zero-data signal ~~is being~~selected when the pixel data is not stored in the storage unit so as to be transmitted to the pixel electrode.

3. (Currently Amended) ~~An~~The optoelectronic-device substrate according to Claim 2, ~~wherein~~the phase of the data-inversion signal is being shifted so that the potential of the data-inversion signal is switched between the plus side and the minus side with reference to the potential of the zero-data signal as an approximate center potential.

4. (Currently Amended) ~~An~~The optoelectronic-device substrate according to Claim 2, ~~wherein~~the storage unit is being formed as an SRAM.

5. (Currently Amended) ~~An~~ The optoelectronic-device substrate according to Claim 1, ~~wherein the memory-cell array comprises including:~~

a plurality of first signal lines ~~for connecting to connect~~ one group of address terminals included in one group of the memory cells in parallel, the one group of the memory cells being provided along a row direction;

a plurality of second signal lines ~~for connecting to connect~~ one group of data terminals included in one group of the memory cells in parallel, the one group of the memory cells being provided along a column direction; and

a plurality of third signal lines ~~for connecting to connect~~ one group of phase-inversion terminals included in one group of the memory cells in parallel, the one group of the memory cells being provided along the row direction or the column ~~direction,~~ direction; and

~~and wherein the optoelectronic-device substrate further comprises including:~~

a first driver circuit ~~for transmitting to transmit~~ address signals in sequence to the memory cells via the plurality of first signal lines, the memory cells being provided along the row direction;

a second driver circuit ~~for transmitting to transmit~~ the pixel data to the memory cells at one time via the plurality of second signal lines, the memory cells being provided along the column direction; and

a third driver circuit ~~for transmitting to transmit~~ phase-inversion signals to each group of the memory cells via the plurality of third signal lines, the group of the memory cells being provided along the row direction or the column direction.

6. (Currently Amended) ~~An~~ The optoelectronic-device substrate according to Claim 4, ~~wherein the third driver circuit has having a phase-inversion circuit for inverting to invert the phase of the pixel data data, and the phase-inversion circuit inverts inverting the phase of the pixel data before the pixel data is transmitted to the memory cells.~~

7. (Currently Amended) ~~An~~ The optoelectronic-device substrate according to Claim 1, ~~wherein the memory-cell array comprises including:~~

a plurality of first signal lines ~~for connecting to connect~~ one group of address terminals included in one group of the memory cells in parallel, the one group of the memory cells being provided along a row direction;

a plurality of second signal lines ~~for connecting to connect~~ one group of data terminals included in one group of the memory cells in parallel, the one group of the memory cells being provided along a column direction; and

a plurality of third signal lines ~~for connecting to connect~~ one group of phase-inversion terminals included in one group of the memory cells in parallel, the one group of the memory cells being provided along the row direction or the column ~~direction~~, direction; and

~~and wherein~~ the optoelectronic-device substrate further ~~comprises including~~:

a row-address-decoder driver circuit ~~for transmitting to transmit~~ row-address data for selecting any of rows of the memory cells via the plurality of first signal lines, the memory cells being provided along the row direction;

a column-address-decoder driver circuit ~~for transmitting to transmit~~ column-address data ~~for selecting to select~~ any of columns of the memory cells via the plurality of second signal lines, the memory cells being provided along the column direction, and the pixel data output to the memory cells designated by the row-address data and the column-address data; and

a phase-inversion driver circuit ~~for transmitting to transmit~~ a phase-inversion signal to each group of the memory cells via the plurality of third signal lines, the each group of the memory cells being provided along the row direction or the column direction.

8. (Currently Amended) ~~An~~ The optoelectronic-device substrate according to Claim 7, ~~wherein~~ the phase-inversion driver circuit ~~has having~~ a phase-inversion circuit ~~for inverting to invert~~ the phase of the pixel data,

~~and wherein~~ the phase-inversion circuit ~~inverts inverting~~ the phase of the pixel data in a predetermined cycle regardless of the number of the memory cells whose display information is rewritten according to the pixel data.

9. (Currently Amended) A digitally-driven liquid-crystal display ~~for driving a liquid crystal layer provided between, comprising:~~

an the optoelectronic-device substrate according to ~~claim 1~~ claim 1; and

a counter ~~substrate~~ substrate; having

a liquid crystal layer provided between the optoelectronic device substrate and the counter substrate; and

_____ a common electrode ~~for supplying to supply~~ a voltage ~~whose having a potential that~~ is equivalent to the potential of the zero data transmitted to the optoelectronic-device substrate.

10. (Currently Amended) An electronic ~~apparatus having~~ apparatus, comprising:
 _____ the digitally driven liquid crystal display according to claim 9; and
 _____ a display unit ~~for displaying to display~~ an image through the digitally-driven liquid-crystal display ~~according to Claim 9.~~

11. (Currently Amended) A projector ~~having, comprising:~~
 _____ a light-source unit ~~for supplying to supply~~ projection light, light;
 _____ ~~a the~~ digitally-driven liquid-crystal display according to Claim 9, 9;
 _____ a control circuit ~~for controlling to control~~ the digitally-driven liquid-crystal display, display; and
 _____ a projection-lens system ~~for magnifying to magnify and projecting project~~ an image of the digitally-driven liquid-crystal display.

12. (Currently Amended) A method ~~for of~~ driving an optoelectronic-device substrate ~~comprising that includes~~ a memory-cell array including a plurality of memory cells that is arranged in matrix form along a row direction and a column direction and that is digitally driven, and a pixel electrode ~~for retrieving to retrieve~~ pixel data stored in the memory cells as an electrical signal, the method comprising:

~~a phase-inversion process for performing at least one of~~ inverting the phase of the pixel data before the pixel data is transmitted to the memory cells, ~~or and~~ inverting the phase of the pixel data after the pixel data is transmitted to the memory cells.

13. (Currently Amended) ~~A The~~ method ~~for of~~ driving an optoelectronic-device substrate according to Claim 12, ~~wherein, in the phase-inversion process, the performing~~ including:

_____ subjecting the pixel data is subjected to pulse-width modulation, dividing one frame is divided into a plurality of sub-sub-frames, determining the potential of the zero-data signal is determined as an approximate center potential, and shifting the potential and phase of the pixel data are shifted to the plus side and the minus side so that display data in the sub sub-frames is shifted with about one-half cycles.

14. (Currently Amended) ~~A The~~ method ~~for of~~ driving an optoelectronic-device substrate according to Claim 12, ~~wherein, in the phase-inversion process, the performing~~

including selecting the memory cells provided along the row direction ~~are selected in sequence sequence,~~ and inverting the phase of the pixel data ~~is inverted at the same time.~~

15. (Currently Amended) ~~A-~~The method for driving an optoelectronic-device substrate according to Claim 14, ~~wherein, in the phase inversion process, the performing~~ including transmitting a cycle with which the phase-inversion signal ~~is transmitted to the~~ memory cells provided along the row ~~direction direction,~~ and making a cycle with which the pixel data is transmitted to the memory cells provided along the row direction ~~are made~~ variable so that the cycles can change in synchronization, whereby a cycle of the ~~sub-sub-~~ frames is made variable so as to present gray scale.